

Amendments of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-17. (Canceled)

18. (Amended) A method for routing content through a network based on semantics of the content being routed, wherein the network comprises a plurality of routers, comprising the steps of:

receiving a semantic profile at one of the plurality of routers, wherein the semantic profile includes~~including~~ information that identifies at least one a user's destination's interest in receiving content;

operating on the semantic profile to identify areas of overlapping interests in receiving content between the semantic profile and other semantic profiles, wherein the other semantic profiles include information that identifies other ~~users'~~ destinations' interest in receiving content;

aggregating the semantic profiles using the identified areas of overlapping interests;

receiving a semantic packet at the one of the plurality of routers wherein the semantic packet comprises a header and content and wherein the header of the semantic packet comprises a preamble, at least one semantic signature, and at least one semantic descriptor; and

routing the semantic packet ~~to~~ towards a destination based at least on a comparison between the semantic content included in the semantic packet and the destination's semantic profile~~aggregated semantic profiles~~.

19. (Previously presented) The method as in claim 18 wherein the semantic descriptors of the semantic packet further comprises environment specific information.

20. (Previously presented) The method as in claim 18 wherein the semantic descriptors of the semantic packet further comprises customized information.

21. (Previously presented) The method as in claim 18 further comprising a forwarding agent which routes the semantic packet through the network using the semantic signature.

22-26. (Canceled)

27. (Amended) A method for routing content through a network based on semantics of the content being routed, wherein the network comprises a plurality of routers, comprising the steps of:

receiving a semantic profile at one of the plurality of routers, wherein the semantic profile includes~~including~~ information that identifies at least one a user's destination's interest in receiving content, wherein the semantic profile comprises:

a preamble,

at least one profile signature,

at least one profile descriptor,

information about a lifetime of the semantic profile,

authentication data, and

a command field that instructs a semantic router;

operating on the semantic profile to identify areas of overlapping interests in receiving content between the semantic profile and other semantic profiles, wherein the other semantic profiles include information that identifies other ~~users'~~ destinations' interest in receiving content;

aggregating the semantic profiles using the identified areas of overlapping interests;

receiving a semantic packet at the one of the plurality of routers; and

routing the semantic packet ~~to~~ towards a destination based at least on a comparison between the semantic content included in the semantic packet and the destination's semantic profile-aggregated semantic profiles.

28. (Previously presented) The method as in claim 27 wherein the preamble of the semantic profile includes at least one semantic descriptor.

29. (Previously presented) The method as in claim 27 wherein the profile descriptor is in a networking community programming language.

30. (Previously presented) The method as in claim 27 wherein the profile descriptor is in XML markup language.

31. (Previously presented) The method as in claim 27 wherein the authentication data is used to verify a user.

32. (Previously presented) The method as in claim 27 wherein the semantic profile further comprises information that allows the semantic network to act as a firewall by controlling who has access to content.

33. (Previously presented) The method as in claim 27 further comprising a policy profile that allows the network to determine content received by a content consumer.

34. (Amended) A method for routing content through a network based on semantics of the content being routed, wherein the network comprises a plurality of routers, comprising the steps of:

receiving a semantic profile at one of the plurality of routers, wherein the semantic profile ~~includes~~including information that identifies at least one a user's destination's interest in receiving content;

operating on the semantic profile to identify areas of overlapping interests in receiving content between the semantic profile and other semantic profiles, wherein the other semantic profiles include information that identifies other ~~users'~~ destinations' interest in receiving content;

aggregating the semantic profiles using the identified areas of overlapping interests;

receiving a semantic packet at the one of the plurality of routers; and

routing the semantic packet ~~to~~ towards a destination based at least on a comparison between the semantic content included in the semantic packet and the destination's semantic profile-aggregated semantic profiles;

wherein the step of aggregating the semantic profile comprises the steps of
parsing a profile file;

creating and populating a node for a profile tree on every information element in the profile file;

creating a fact associated with the node;

reading in a rule file, wherein rules are written to compare name, value, parent, label and children of the node;

running a rule engine which will fire the rules based on the facts;

calling a corresponding method that transforms at least one node in the profile tree when the fact fires and attaching methods on subtrees for transformations.

35. (Previously presented) The method of claim 34 where the facts and rules are represented in Jess system and the methods are represented in Java programming language.

36-54. (Canceled)

55. (Amended) A method for announcing and retrieving content comprising the steps of:

receiving a content profile wherein the content profile includes information identifying content available from a first one of a plurality of destinations ~~content provider~~;

operating on the content profile to identify areas of overlapping content between the content profile and other content profiles, wherein the other content profiles include information that identifies content available from destinations other than the first destination ~~content providers~~;

aggregating the content profile with the other content profiles using the identified areas of overlapping content;

distributing the aggregated content profiles into a semantic network;

storing the aggregated content profiles at semantic routers within the semantic network;

receiving seek packets wherein the seek packets include at least one request for content;

creating a semantic profile comprising ~~an~~ a second one of the plurality of destinations' interest in specified content;

propagating the semantic profile to at least one of the semantic routers;

operating on the semantic profile to identify areas of overlapping interests in receiving the specified content between the semantic profile and other semantic profiles, wherein the other semantic profiles include information that identifies destinations other ~~users'~~ than the second destination's interest in receiving the specified content;

aggregating the semantic profile with the other semantic profiles on the at least one of the semantic routers using the identified areas of overlapping interests;

propagating the aggregated semantic profiles through the semantic network;

routing the seek packets ~~to~~ towards the plurality of destinations ~~content providers~~ based at least on the aggregated content profiles stored at semantic routers and the requested content included in the seek packet;

receiving a semantic packet wherein the semantic packet includes content in response to the seek packet; and

routing the semantic packet ~~to~~ towards a third one of a plurality of destinations based at least on a comparison between the semantic content included in the semantic packet and the third one of the plurality of destination's semantic profile ~~aggregated semantic profiles~~.

56. (New) The method of claim 18 wherein the destination comprises one of a user or another one of the plurality of routers.

57. (New) The method of claim 27 wherein the destination comprises one of a user or another one of the plurality of routers.

58. (New) The method of claim 34 wherein the destination comprises one of a user or another one of the plurality of routers.

59. (New) The method of claim 55 wherein the plurality of destinations comprise one of a user, a content provider or one of the semantic routers.

60. (New) The method of claim 55 wherein the second one of the plurality of destinations and the third one of the plurality of destinations are the same destination.

61. (New) The method of claim 55 wherein the second one of the plurality of destinations and the third one of the plurality of destinations are different destinations.